

**Claims**

1. A part tracking device system comprising a part, a part tracking device embedded in the part, a magnetic field detector that passes over the part and creates a signal and compares that signal to a signal stored in a database corresponding to the part and creates an output based on the comparison.
2. A part tracking device system according to claim 1, wherein the part tracking device is an irregularly shaped metallic object.
3. A part tracking device system according to claim 1, wherein the part tracking device comprises a material different than the part.
4. A part tracking device system according to claim 1, wherein the magnetic field detector comprises multiple coils of wire.
5. A part tracking device system according to claim 1, wherein the magnetic field detector comprises a magnetic field generator.
6. A part tracking device system according to claim 1, wherein the part tracking device system comprises a display for showing the results of the magnetic field detector scan.
7. A method for tracking parts comprising the steps of querying at least one part from data in a database about parts on a helicopter, checking if there is a return signal, and determining whether the part is the correct part.
8. A method for tracking parts according to claim 7, further comprising the step of checking whether the part is authorized.
9. A method for tracking parts according to claim 8, further comprising the step of checking whether the part is damaged.

10. A method for tracking parts according to claim 9, further comprising the step generating an error report.
11. A method for tracking parts according to claim 10, further comprising the step preventing the helicopter from restarting if a wrong part, unauthorized part or a damaged part is installed on the helicopter.
12. A part tracking system comprising a generator, a processor and an electronic part tracking device attached to a part wherein the electronic part tracking device comprises a signal pickup, a signal generator, and a signal return.
13. A part tracking system according to claim 12, wherein the part tracking device is attached to the part so that any removal of the part tracking device destroys the part tracking device.
14. A part tracking system according to claim 13, wherein the part tracking device contains information including part installation date and part maintenance information.
15. A part tracking system according to claim 14, wherein part tracking device uses magnetic fields to transfer signals.
16. A part tracking system according to claim 14, wherein part tracking device uses radio frequencies to transfer signals.
17. A part tracking system according to claim 14, wherein part tracking device has a unique physical serial number attached.
18. A part tracking system according to claim 12, wherein the generator and the processor are contained in the same portable housing.

19. A part tracking system according to claim 12, wherein the generator comprises a test button, an On/Off switch, a signal transmitter and a power source.

20. A part tracking system according to claim 12, wherein the processor comprises an output, a display, a filter and a control unit.